C0410002, Incoming

#5341

Canyon Fuel Company, LLC
A Subsidiary of Bowie Resources Partner, LLC

Sufco Mine
Kenneth E. May
General Manager
597 South SR24
Salina, Utah 84654
(435) 286-4400
Fax (435) 286-4499

November 29, 2016

Permit Supervisor
Utah Coal Regulatory program
Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, UT 84114-5801

Re: Waste Rock Site – As-Builts Soils Amendment, Canyon Fuel Company, LLC, Sufco Mine

Dear Sirs:

Please find enclosed with this letter an amendment to the Sufco Mine Permit to address the topsoil and subsoil salvage from the expansion of the Waste Rock Disposal Site. This information is being submitted per a commitment in Chapter 2 – Soils.

On Maps 2A thru 2F, the salvage tables have been removed and put onto a newly created Map 2G. This was done to enable updating of the salvage tables without having to resubmit Maps 2A thru 2F in the future. In addition the cross sections (Maps 3A thru 3C) for the Map 2 series have been included in this amendment.

The 2016 Table has been compiled to summarize information from existing tables showing soils salvaged and stored on the site previous to the expansion with potential soil salvage from future phases of waste rock expansion. An attempt has been made in the creation of this table to enable Division personnel to follow what soils are stored from future reclamation and what soils were used to reclaim Lift 5.

If you have questions or need addition information please contact Vicky Miller at (435)286-4481.

CANYON FUEL COMPANY
SUFCO Mine

Vicky L Miller
for

Jacob Smith
Technical Services Manager

Encl.

cc: DOGM Correspondence File

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DIV. OF OIL, GAS & MINING

APPLICATION FOR COAL PERMIT PROCESSING
Detailed Schedule Of Changes to the Mining And Reclamation Plan

Permittee: Canyon Fuel Company, LLC
Mine: Sufco Mine **Permit Number:** C/041/002
Title: Waste Rock Disposal Site - As-built Soils Amendment

Provide a detailed listing of all changes to the Mining and Reclamation Plan, which is required as a result of this proposed permit application. Individually list all maps and drawings that are added, replaced, or removed from the plan. Include changes to the table of contents, section of the plan, or other information as needed to specifically locate, identify and revise the existing Mining and Reclamation Plan. Include page, section and drawing number as part of the description.

			DESCRIPTION OF MAP, TEXT, OR MATERIAL TO BE CHANGED
☐ Add	☐ Replace	☐ Remove	M&RP - WRDS Volume 3
☐ Add	☒ Replace	☐ Remove	Chapter 2, Page 2-22
☒ Add	☐ Replace	☐ Remove	Chapter 2, Page 2-27, 2016 Table
☐ Add	☒ Replace	☐ Remove	Maps 2-A through 2-F
☒ Add	☐ Replace	☐ Remove	Map 2-G
☐ Add	☒ Replace	☐ Remove	Maps 3-A thru 3-C
☐ Add	☐ Replace	☐ Remove	
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Any other specific or special instruction required for insertion of this proposal into the Mining and Reclamation Plan.

November 29, 2016

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Form DOGM - C2 (Revised March 12, 2002)

APPLICATION FOR COAL PERMIT PROCESSING

Permit Change ☒ New Permit ☐ Renewal ☐ Exploration ☐ Bond Release ☐ Transfer ☐

Permittee: Canyon Fuel Company, LLC
Mine: Sufco Mine **Permit Number:** C/041/0002
Title: Waste Rock Disposal Site - As-Built Soils AMendment
Description, Include reason for application and timing required to implement:

Instructions: If you answer yes to any of the first eight (gray) questions, this application may require Public Notice publication.

☐ Yes ☒ No 1. Change in the size of the Permit Area? Acres: _____ Disturbed Area: _ ☐ increase ☐ decrease.
☐ Yes ☒ No 2. Is the application submitted as a result of a Division Order? DO# _____
☐ Yes ☒ No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
☐ Yes ☒ No 4. Does the application include operations in hydrologic basins other than as currently approved?
☐ Yes ☒ No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
☐ Yes ☒ No 6. Does the application require or include public notice publication?
☐ Yes ☒ No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?
☐ Yes ☒ No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
☐ Yes ☒ No 9. Is the application submitted as a result of a Violation? NOV # _____
☐ Yes ☒ No 10. Is the application submitted as a result of other laws or regulations or policies?
Explain: _____
☐ Yes ☒ No 11. Does the application affect the surface landowner or change the post mining land use?
☐ Yes ☒ No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
☐ Yes ☒ No 13. Does the application require or include collection and reporting of any baseline information?
☐ Yes ☒ No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
☒ Yes ☐ No 15. Does the application require or include soil removal, storage or placement?
☐ Yes ☒ No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?
☐ Yes ☒ No 17. Does the application require or include construction, modification, or removal of surface facilities?
☐ Yes ☒ No 18. Does the application require or include water monitoring, sediment or drainage control measures?
☒ Yes ☐ No 19. Does the application require or include certified designs, maps or calculation?
☐ Yes ☒ No 20. Does the application require or include subsidence control or monitoring?
☐ Yes ☒ No 21. Have reclamation costs for bonding been provided?
☐ Yes ☒ No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
☐ Yes ☒ No 23. Does the application affect permits issued by other agencies or permits issued to other entities?

Please attach four (4) review copies of the application. If the mine is on or adjacent to Forest Service land please submit five (5) copies, thank you. (These numbers include a copy for the Price Field Office)

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

Les A. Topham
Print Name

Les A. Topham Business Mgr. 11-29-16
Sign Name, Position, Date

Subscribed and sworn to before me this 29 day of November, 20 16

Jacquelyn Nebeker
Notary Public

My commission Expires: _____, 20____}
Attest: State of _____} } ss:
County of _____

JACQUELYN NEBEKER
Notary Public
State of Utah
My Commission Expires 03/24/2019
COMMISSION NUMBER 681827

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Form DOGM- C1 (Revised March 12, 2002)

CHAPTER 2

SOILS

pile is sufficient to meet reclamation standards for bond release. The Division has previously approved 30" at the waste rock site as being sufficient to cover the placed waste and promote the establishment of vegetation. Historically, portions of the waste rock pile have received the 30" of topsoil and have revegetated well. To demonstrate that the 30" is sufficient for cover and revegetation additional information pertaining to a contemporaneous reclamation project will be provided to the Division for review and approval.

Soil Thickness: The topsoil will be distributed to the disturbed areas illustrated on Map 8. Soil will be spread to a minimum depth of approximately 30 inches . The 30 inches will be made up of approximately 15 inches of topsoil and 15 inches of subsoil. Deeper soil cover up to 48"(15 - 24" topsoil and 24 - 33" subsoil) will be applied, if necessary, to avoid plant toxicity problems.

Phases 1 - 6 - It is planned that during the reclamation of Phases 1 thru 6 that approximately 30 inches of topsoil and 18 inches of subsoil (48") will be placed atop the waste rock piles. The four foot depth of placed soil could vary from 24 to 30 inches of topsoil and from 18 to 24 inches of subsoil, these amounts are dependent upon the actual quantity of soils salvaged during the construction of the site.

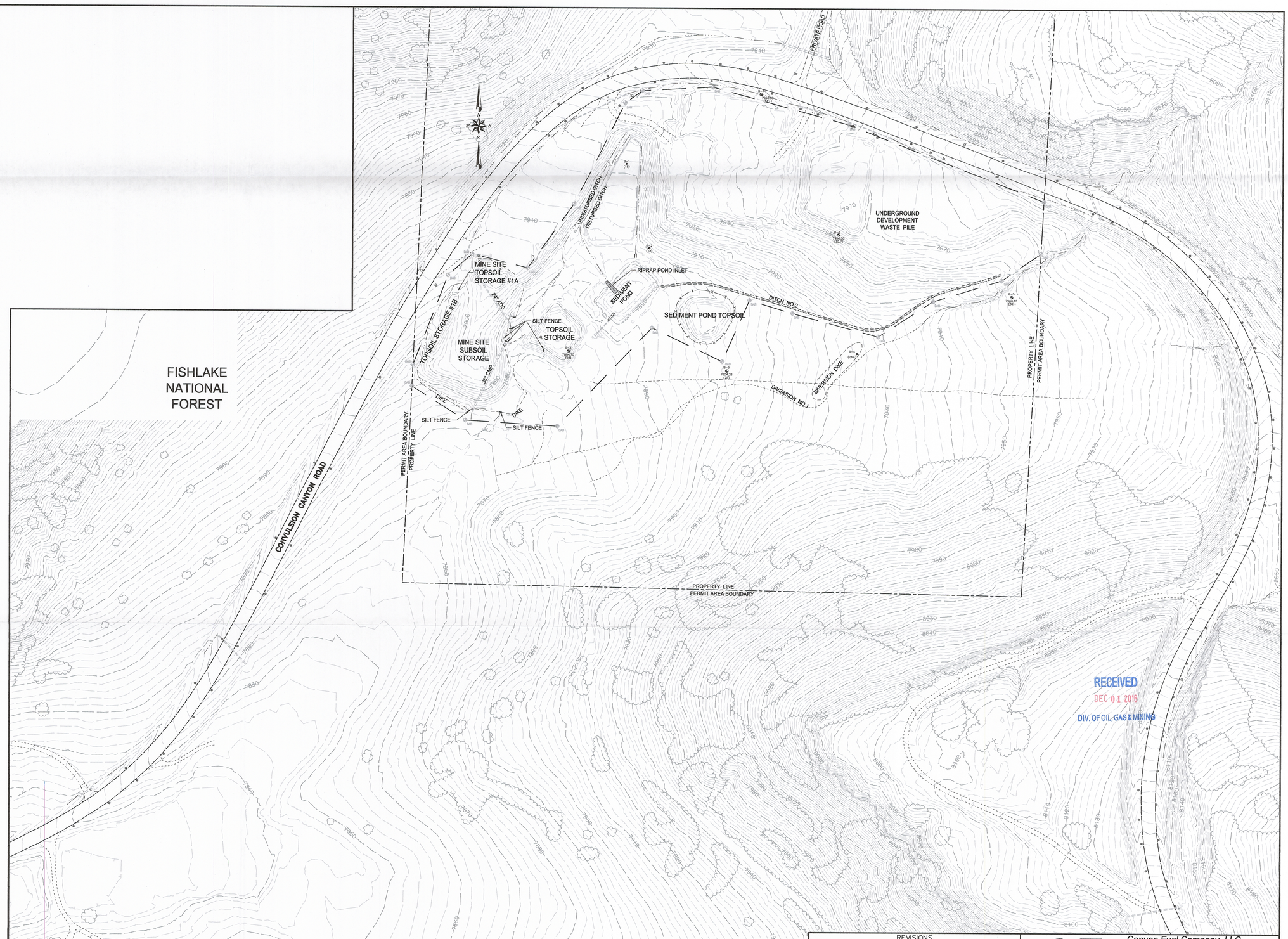
The remainder of the disturbed site area, not used for refuse storage will be covered with approximately 12 inches of topsoil (i.e. reclaimed roads, ditches, berms, etc. approximately 4.34 acres). The area and topsoil/subsoil cubic yards for each phase are shown on Plates 2A thru 2F.

The quantity of topsoil/subsoil placed during reclamation of will be determined by surveying the phased area prior to placement and post placement. The M&RP will be updated with as-built drawings, cross sections and a table(s) listing volumes of subsoil and topsoil stockpiles placed within 6 months of the completion of salvage for each phase. The soil salvage during Phases 1 and 2 are shown on the 2016 Table and Map 2G. The table shows topsoil/subsoil quantities, placed on Lift 5, actually within the storage piles and the estimated quantities to be salvaged in the future.

2016 Table (all quantities are estimated)

	Soil Type	Topsoil (In.)	Subsoil (In.)	Area (SF)	Estimated Topsoil Salvage (CY)	Topsoil Replaced (CY)	Stockpiled Topsoil Remaining (CY)	Estimated Subsoil Salvage (CY)	Subsoil Replaced (CY)	Stockpiled Subsoil Remaining (CY)
Phase 1	1	20	36	55080	3400			6460	0	
	2	35	33	158297	17100			2740	0	
	4	19	0	8526	500			0	0	
	Rehandled	30	0	37800	3500			0	0	
Phase 2	1	20	36	106920	6600			15300		
	3	26	12	42369	3400			1600		
	5	17	9	47647	2500			1300		
Previously Stored*					7061			11747		
Total					44061			39147		
Placed on Lift 5 - Jun 2016						7705			9417	
Remainder							36,356			29,730
Actual Soil In Storage Oct. 2016**							27900			25850
							+18353			+ 14247
Phase 3	1	20	36	45978	2838		46,253	5392		40097
	2	35	33	53858	5818		-28,178	5486		- 17270
	3	26	12	90961	7299			3369		
	Rehandled	30	0	25897	2398			0		
					18353	23764 + 4414***	= 18,075	14247	14565 + 2705***	= 22,827
							+ 20337			+ 12317
Phase 4	2	35	33	85964	9286		38,412	8756		35144
	3	26	12	96154	7716		-19591	3561		- 12008
	Rehandled	30	0	36023	3335			0		
					20337	19591	= 18821	12317	12008	23,136
							+ 22847			+ 16764
Phase 5	1	20	36	11185	690		41668	1312		39900
	2	35	33	130199	14065		-21538	13261		- 13201
	3	26	12	59163	4748			2191		
	Rehandled	30	0	36112	3344			0		
					22847	21538	= 20130	16764	13201	26,699
							+ 10582			+ 11917
Phase 6	1	20	36	33498	2068		30712	3929		38616
	2	35	33	78048	8431		-23120	7949		- 8163
	3	26	12	1037	83			38		
					10582	23120	0 **** (7592)	11917	8163	30,453 *****

* For referenced quantities refer to Topsoil and Subsoil Storage Piles Pre-Expansion-Historic Table, Chapter 2, Page 2-4
** Determined by flyover survey June 2016
*** Estimated quantity to reclaim Phase 1, which was combined with Phase 2 during construction and will be reclaimed together
**** All remaining topsoil will be placed regardless of quantity
***** Subsoil salvage volumes will be adjusted/decreased as needed



LEGEND

- 8140 — EXISTING GROUND MAJOR CONTOUR (10 FOOT)
- EXISTING GROUND MINOR CONTOUR (2 FOOT)
- EXISTING ROAD
- EXISTING PAVED ROAD
- EXISTING CULVERT
- DISTURBED AREA BOUNDARY
- PROPERTY BOUNDARY
- EXISTING TREELINE
- EXISTING SIGN

NOTE:
TOPOGRAPHIC DATA BASED ON 2013 AERIAL SURVEY

User: 11/2/2016 8:38 AM

REVISIONS

NO.	DATE	REQ. BY	DWG. BY	REMARKS
1	8/6/2014	VM	JA	PLATE UPDATES
2	9/4/2014	VM	JA	PLATE UPDATES
3	9/19/2014	VM	JA	PLATE UPDATES
4	10/18/2016	VM	JA	PLATE UPDATES

Canyon Fuel Company, LLC
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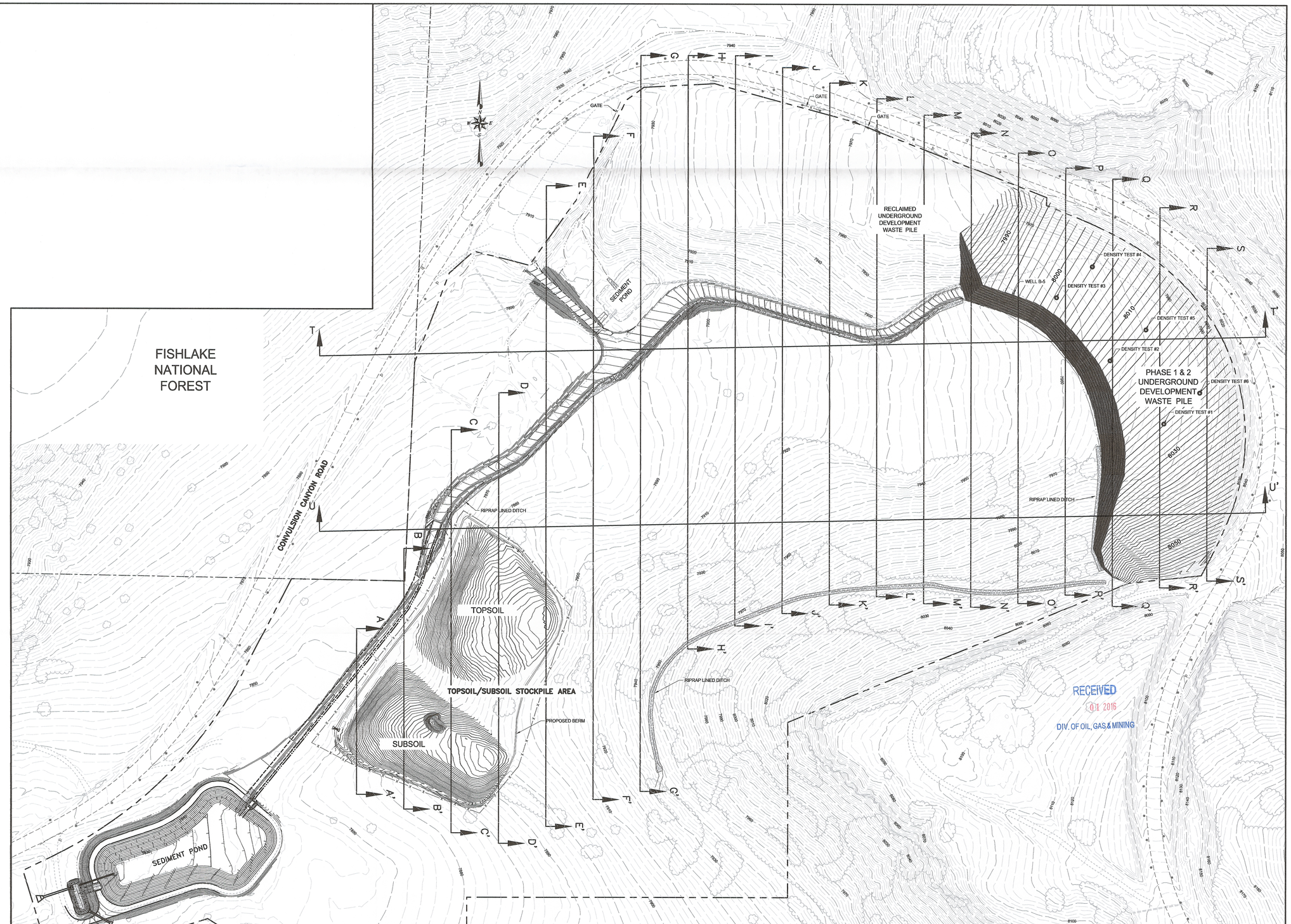
(435) 286-4499 Fax

WASTE ROCK PILE
OPERATIONAL PLAN – PRE-EXPANSION TOPOGRAPHY

PEN TBL:	
_1Stndrd-HPT1100.ctb	
SHT SET: 1406-120	PROJECT NUMBER: 1406-120

SCALE:	DATE:	DRAWN BY:	ENGINEER:	CHECKED BY:	SHEET NO.
1" = 100'	11/2/2016	JA	LF / TH	VM	MAP 2A

FILE NAME: .../SHEET 1 OPERATIONAL COVER-2A.dwg



LEGEND

- 8140 — EXISTING GROUND MAJOR CONTOUR (10 FOOT)
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- 8140 — OPERATIONAL GROUND MAJOR CONTOUR (5 FOOT)
- OPERATIONAL GROUND MINOR CONTOUR (1 FOOT)
- EXISTING ROAD
- EXISTING PAVED ROAD
- EXISTING RIPRAP
- EXISTING DITCH
- EXISTING SIGN
- PROPOSED ANCILLARY ROAD
- EXISTING CULVERT
- PROPOSED CULVERT
- PROPOSED BERM
- DISTURBED AREA BOUNDARY
- PROPERTY BOUNDARY
- EXISTING TREELINE
- A — A' OPERATIONAL CROSS SECTION LOCATION (SEE MAP 3A, MAP 3B AND MAP 3C FOR CROSS-SECTIONS)

NOTE:
TOPOGRAPHIC DATA BASED ON 2016 AERIAL SURVEY

REVISIONS

NO.	DATE	REQ. BY	DWG. BY	REMARKS
1	8/6/2014	VM	JA	PLATE UPDATES
2	9/4/2014	VM	JA	PLATE UPDATES
3	9/19/2014	VM	JA	PLATE UPDATES
4	10/18/2016	VM	JA	PLATE UPDATES

Canyon Fuel Company, LLC
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WASTE ROCK PILE
OPERATIONAL PLAN – PHASE 1 & 2

PEN TBL:	SCALE:	DATE:	DRAWN BY:	ENGINEER:	CHECKED BY:	SHEET NO.
_1Stndrd-HPT1100.ctb	1" = 100'	11/2/2016	JA	LF / TH	VM	MAP 2B
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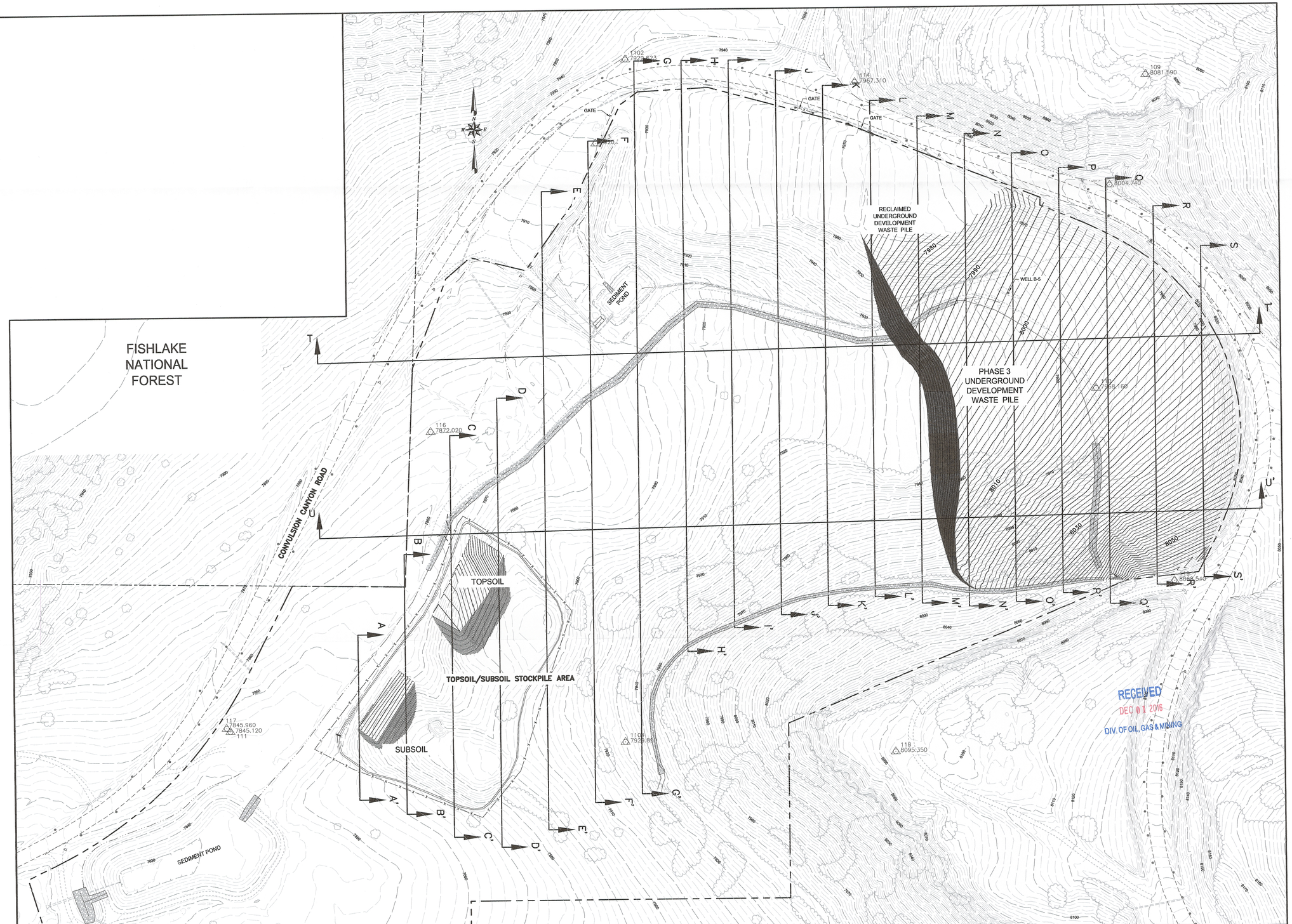

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- A — A' OPERATIONAL CROSS SECTION LOCATION (SEE MAP 3A, MAP 3B AND MAP 3C FOR CROSS-SECTIONS)

NOTE:
TOPOGRAPHIC DATA BASED ON 2016 AERIAL SURVEY

REVISIONS

NO.	DATE	REQ. BY	DWG. BY	REMARKS
1	8/6/2014	VM	JA	PLATE UPDATES
2	9/4/2014	VM	JA	PLATE UPDATES
3	9/19/2014	VM	JA	PLATE UPDATES
4	10/19/2016	VM	JA	PLATE UPDATES

Canyon Fuel Company, LLC
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WASTE ROCK PILE
OPERATIONAL PLAN – PHASE 3

PEN TBL:	SCALE:	DATE:	DRAWN BY:	ENGINEER:	CHECKED BY:	SHEET NO.
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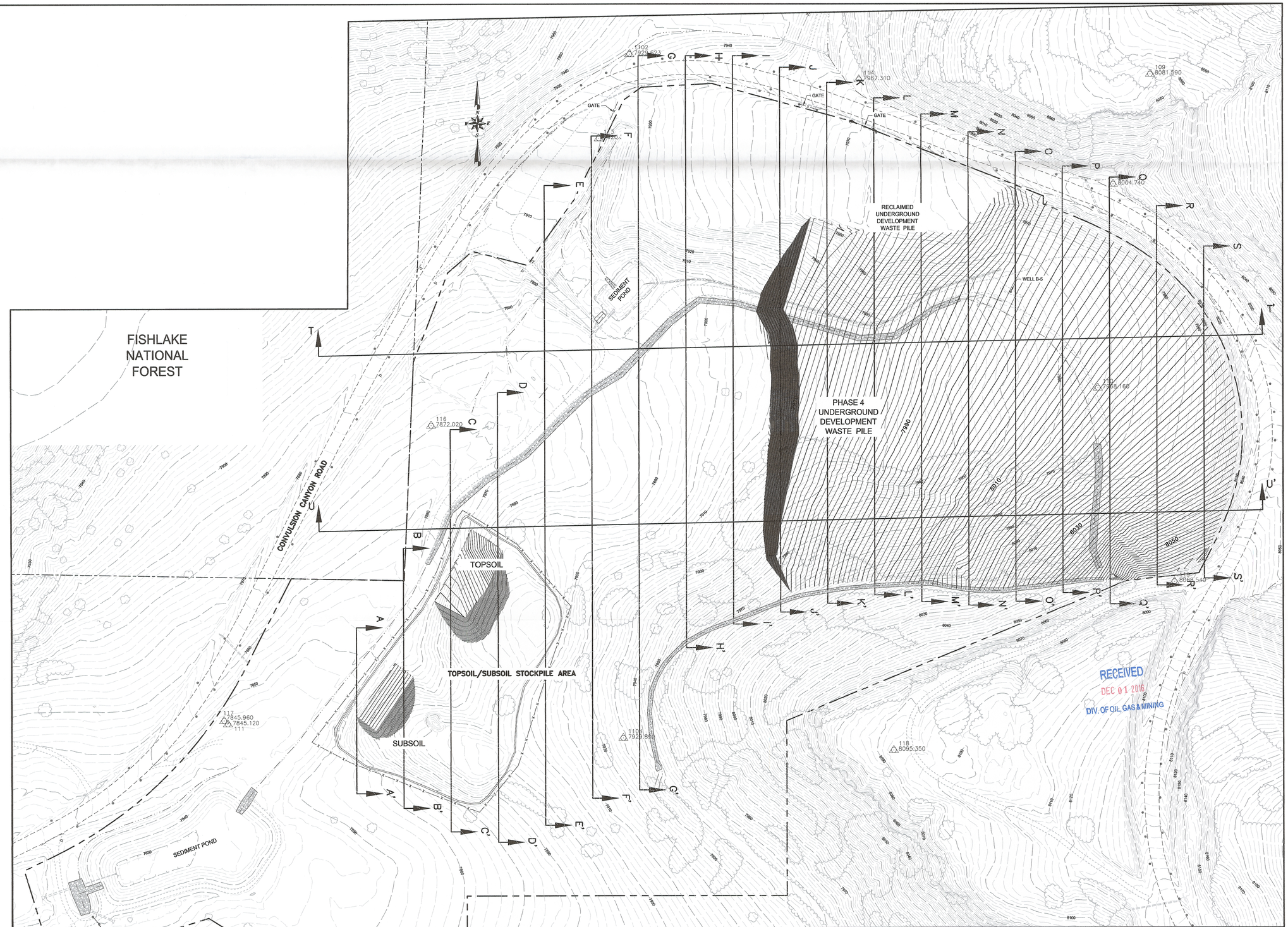

LEGEND

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- EXISTING RIPRAP
- EXISTING DITCH
- EXISTING SIGN
- PROPOSED ANCILLARY ROAD
- EXISTING CULVERT
- PROPOSED CULVERT
- PROPOSED BERM
- DISTURBED AREA BOUNDARY
- PROPERTY BOUNDARY
- EXISTING TREELINE
- A — A' OPERATIONAL CROSS SECTION LOCATION (SEE MAP 3A, MAP 3B AND MAP 3C FOR CROSS-SECTIONS)

NOTE:
TOPOGRAPHIC DATA BASED ON 2016 AERIAL SURVEY

REVISIONS

NO.	DATE	REQ. BY	DWG. BY	REMARKS
1	8/6/2014	VM	JA	PLATE UPDATES
2	9/4/2014	VM	JA	PLATE UPDATES
3	9/19/2014	VM	JA	PLATE UPDATES

Canyon Fuel Company, LLC
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WASTE ROCK PILE
OPERATIONAL PLAN – PHASE 4

PEN TBL:	SCALE:	DATE:	DRAWN BY:	ENGINEER:	CHECKED BY:	SHEET NO.
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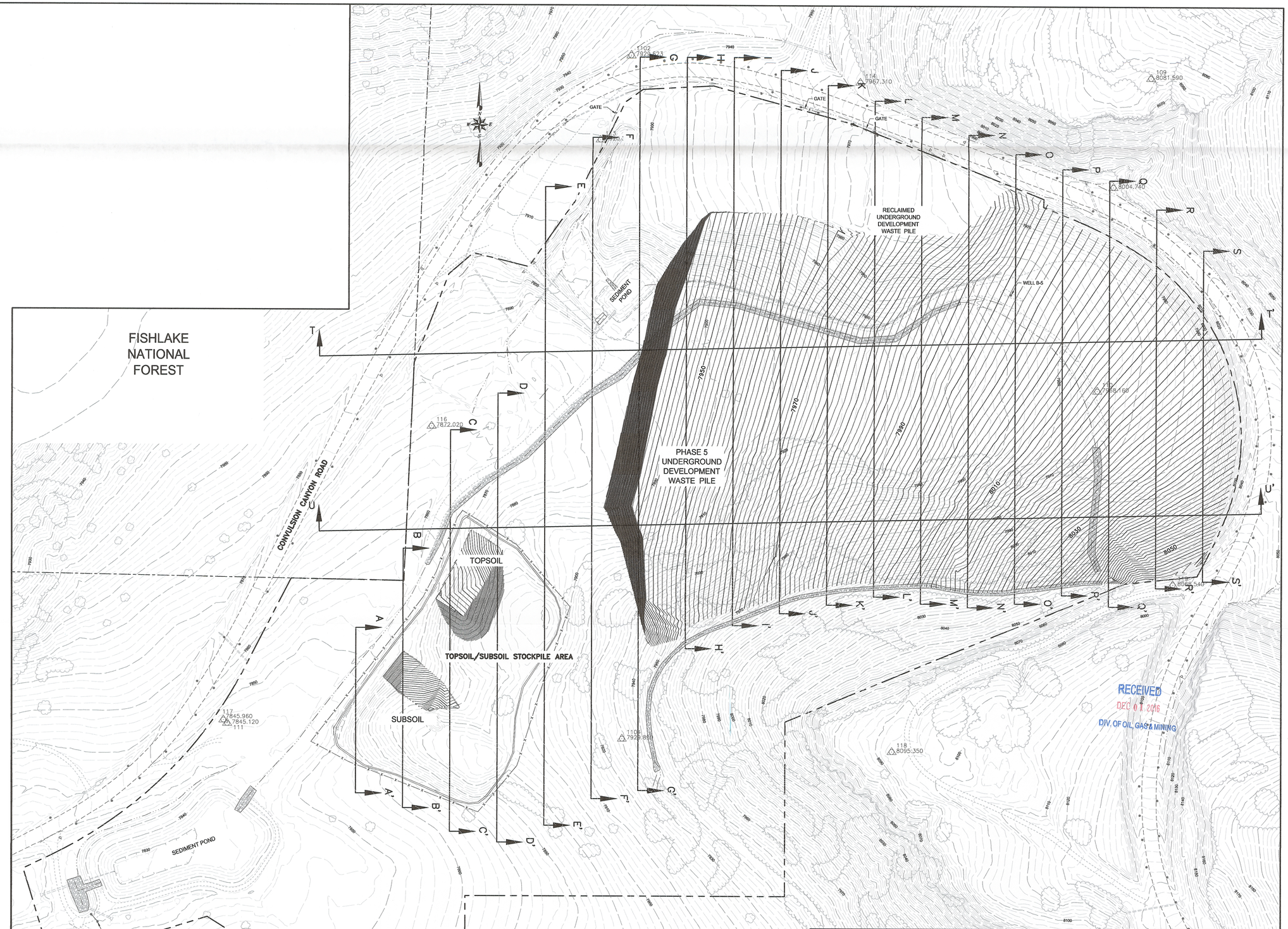

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NOTE:
TOPOGRAPHIC DATA BASED ON 2016 AERIAL SURVEY

REVISIONS

NO.	DATE	REQ. BY	DWG. BY	REMARKS
1	8/8/2014	VM	JA	PLATE UPDATES
2	9/4/2014	VM	JA	PLATE UPDATES
3	9/19/2014	VM	JA	PLATE UPDATES

Canyon Fuel Company, LLC
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WASTE ROCK PILE
OPERATIONAL PLAN – PHASE 5

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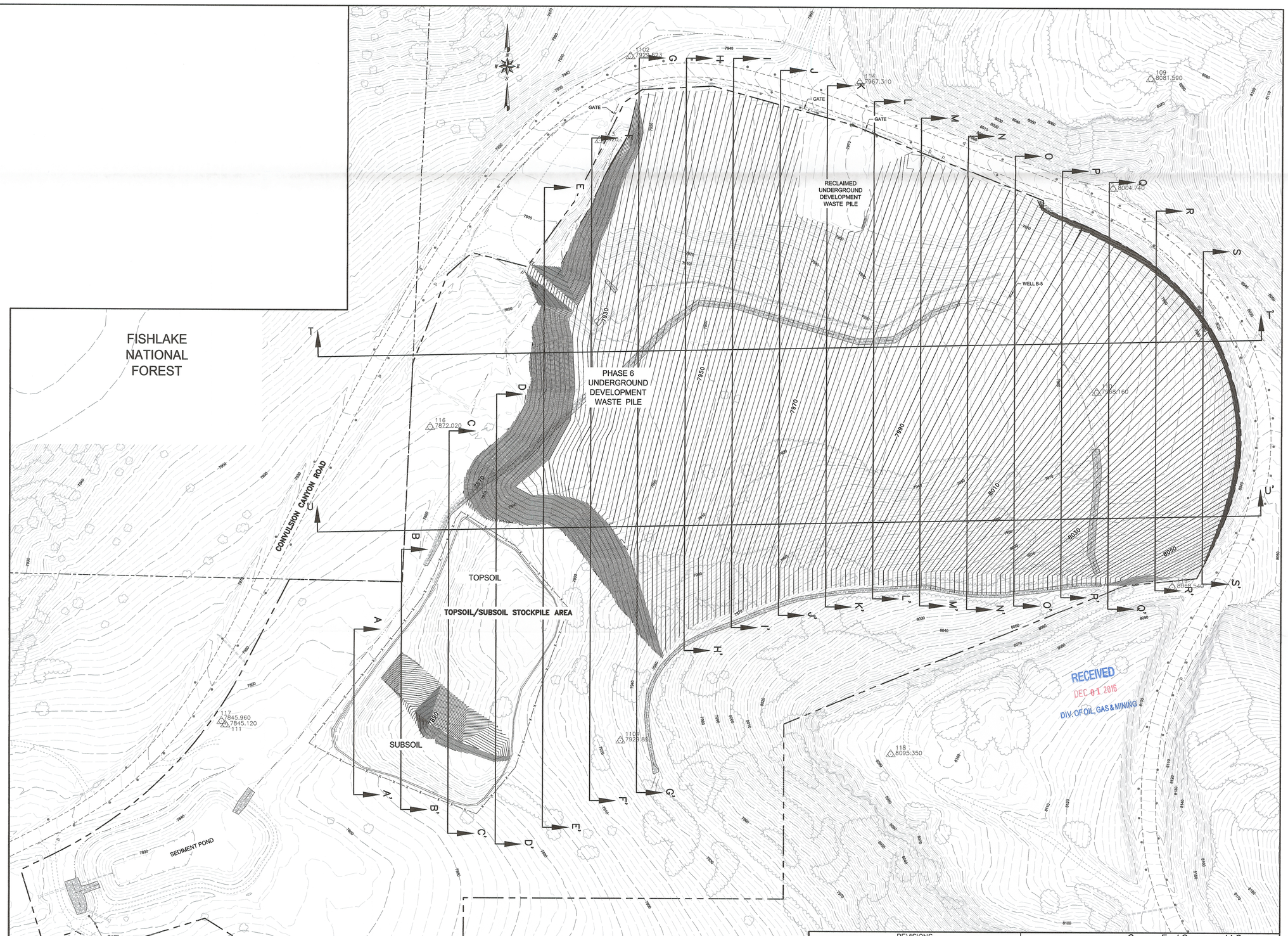

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NOTE:
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1	8/6/2014	VM	JA	PLATE UPDATES
2	9/4/2014	VM	JA	PLATE UPDATES
3	9/19/2014	VM	JA	PLATE UPDATES

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WASTE ROCK PILE
OPERATIONAL PLAN – PHASE 6

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Sufco Waste Rock Topsoil / Subsoil

*Soil Type	Topsoil (Inches)	Subsoil (Inches)	Phase 1 ** Area (SF)	Topsoil Salvaged (CY)	Topsoil Replaced (CY)	Stockpiled Topsoil Remaining (CY)	Cumulative Stockpiled Topsoil Remaining (CY)	Subsoil Salvaged(CY)	Subsoil Replaced (CY)	Stockpiled Subsoil Remaining (CY)	Cumulative Stockpiled Subsoil Remaining (CY)	Waste Rock (CY) ②
1	20	38	55080	3400	0	0	24500	6460	0	9200	9200	0
2	35	33	158297	17100				2740				
3	26	12										
4	19	0	8526	500				0				
5	17	9										
Rehandled Soils	30	0	37800	3500				0				
Total				**24500**	**0**	**0**	**24500**	**9200**	**0**	**9200**	**9200**	**0**

*See Fig. 5 for Soil Type Map
** Phase 1 & 2 Constructed at the Same Time, Therefore They Will Be Reclaimed Together

Sufco Waste Rock Topsoil / Subsoil

*Soil Type	Topsoil (Inches)	Subsoil (Inches)	Phase 2 ** Area (SF)	Topsoil Salvaged (CY)	Topsoil Replaced (CY)	Stockpiled Topsoil Remaining (CY)	Cumulative Stockpiled Topsoil Remaining (CY)	Subsoil Salvaged(CY)	Subsoil Replaced (CY)	Stockpiled Subsoil Remaining (CY)	Cumulative Stockpiled Subsoil Remaining (CY)	Waste Rock (CY)
1	20	38	106920	6600	0	0	12500	15300	0	0	18200	296700
2	35	33										
3	26	12	42369	3400				1600				
4	19	0										
5	17	9	47647	2500				1300				
Rehandled Soils	30	0	0	0				0				
Total				**12500**	**0**	**0**	**12500**	**18200**	**0**	**0**	**18200**	**296700**

*See Fig. 5 for Soil Type Map
** Phase 1 & 2 Constructed at the Same Time, Therefore They Will Be Reclaimed Together

Sufco Waste Rock Topsoil / Subsoil

Lift 5 Topsoil Replaced (CY)	Stockpiled Topsoil Remaining (CY)	Cumulative Stockpiled Topsoil Remaining (CY)	Subsoil Replaced (CY)	Stockpiled Subsoil Remaining (CY)	Cumulative Stockpiled Subsoil Remaining (CY)
7705	20308.13	20308.13	9417	24551.50	24551.50
7705	**20308**	**20308**	**9417**	**24552**	**24552**

Refer to Table 2-2 for Additional Details

Sufco Waste Rock Topsoil / Subsoil

Actual Soil in Storage 2016**

Cumulative Stockpiled Topsoil Remaining (CY)		Cumulative Stockpiled Subsoil Remaining (CY)	
27900		25850	
Total	**27900**	**Total**	**25850**

**Based aerial flight information from 2016

Sufco Waste Rock Topsoil / Subsoil

*Soil Type	Topsoil (Inches)	Subsoil (Inches)	Phase 3 *** Area (SF)	Topsoil Salvaged (CY)	Topsoil Replaced (CY)	Stockpiled Topsoil Remaining (CY)	Cumulative Stockpiled Topsoil Remaining (CY)	Subsoil Salvaged(CY)	Subsoil Replaced (CY)	Stockpiled Subsoil Remaining (CY)	Cumulative Stockpiled Subsoil Remaining (CY)	Waste Rock (CY)
1	20	38	45978	2838	28178	-9825	18075	5392	17270	-3023	22827	384600
2	35	33	53858	5818				5486				
3	26	12	90961	7299				3369				
4	19	0										
5	17	9										
Rehandled Soils	30	0	25897	2398				0				
Total				**18353**	**28178**	**-9825**	**18075**	**14247**	**17270**	**-3023**	**22827**	**384600**

*See Fig. 5 for Soil Type Map
*** Refer To Table 2-2 For Additional Details

Sufco Waste Rock Topsoil / Subsoil

Soil Type	Topsoil (Inches)	Subsoil (Inches)	Phase 4 Area (SF)	Topsoil Salvaged (CY)	Topsoil Replaced (CY)	Stockpiled Topsoil Remaining (CY)	Cumulative Stockpiled Topsoil Remaining (CY)	Subsoil Salvaged(CY)	Subsoil Replaced (CY)	Stockpiled Subsoil Remaining (CY)	Cumulative Stockpiled Subsoil Remaining (CY)	Waste Rock (CY)
1	20	38		0	19591	746	18821	0	12008	309	23136	412654
2	35	33	85964	9286				8756				
3	26	12	96154	7716				3561				
4	19	0										
5	17	9										
Rehandled Soils	30	0	36023	3335				0				
Total				**20337**	**19591**	**746**	**18821**	**12317**	**12008**	**309**	**23136**	**412654**

*See Fig. 5 for Soil Type Map

Sufco Waste Rock Topsoil / Subsoil

Soil Type	Topsoil (Inches)	Subsoil (Inches)	Phase 5 Area (SF)	Topsoil Salvaged (CY)	Topsoil Replaced (CY)	Stockpiled Topsoil Remaining (CY)	Cumulative Stockpiled Topsoil Remaining (CY)	Subsoil Salvaged(CY)	Subsoil Replaced (CY)	Stockpiled Subsoil Remaining (CY)	Cumulative Stockpiled Subsoil Remaining (CY)	Waste Rock (CY)
1	20	38	11185	690	21538	1309	20130	1312	13201	3563	26699	439611
2	35	33	130199	14065				13261				
3	26	12	59163	4748				2191				
4	19	0										
5	17	9										
Rehandled Soils	30	0	36112	3344				0				
Total				**22847**	**21538**	**1309**	**20130**	**16764**	**13201**	**3563**	**26699**	**439611**

*See Fig. 5 for Soil Type Map

Sufco Waste Rock Topsoil / Subsoil

Soil Type	Topsoil (Inches)	Subsoil (Inches)	Phase 6 Area (SF)	Topsoil Salvaged (CY)	Topsoil Replaced (CY)	Stockpiled Topsoil Remaining (CY)	Cumulative Stockpiled Topsoil Remaining (CY)	Subsoil Salvaged(CY)	Subsoil Replaced (CY)	Stockpiled Subsoil Remaining (CY)	Cumulative Stockpiled Subsoil Remaining (CY)	Waste Rock (CY)
1	20	38	33498	2068	23120	-12538	7592	3929	8163	3754	30452	382499
2	35	33	78048	8431				7949				
3	26	12	1037	83				38				
4	19	0										
5	17	9										
Rehandled Soils	30	0	0	0			④	0				⑤
Total				**10582**	**23120**	**-12538**	**7592**	**11917**	**8163**	**3754**	**30452**	**382499**

*See Fig. 5 for Soil Type Map

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NOTE:

① SEE MAPS 4A - 4F FOR DIMENSIONS OF SOIL STORAGE STOCKPILES.

② THERE WILL BE NO WASTE ROCK PLACEMENT IN PHASE 1.
PHASE 1 WILL BE ONLY ROADWAY AND SEDIMENT POND CONSTRUCTION.

③ SEE TABLES 2-1 & 2-2 FOR ADDITIONAL DETAILS

④ ALL REMAINING TOPSOIL WILL BE PLACED REGARDLESS OF QUANTITY.

⑤ SUBSOIL SALVAGE VOLUMES WILL BE ADJUSTED / DECREASED AS NEEDED.

REVISIONS

NO.	DATE	REQ. BY	DWG. BY	REMARKS

Canyon Fuel Company, LLC
SUFCO Mine
597 South SR 24 – Salina, UT 84654
(435) 286-4880 Phone
(435) 286-4499 Fax

WASTE ROCK PILE
PHASE 1 THRU 6 SOIL TABLES

PEN TBL:	SCALE:	DATE:	DRAWN BY:	ENGINEER:	CHECKED BY:	SHEET NO.
_1Stndrd-HPT1100.ctb	NONE	11/2/2016	JA	LF / TH	VM	MAP 2G
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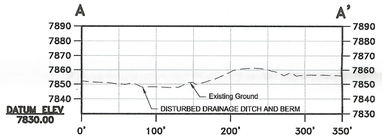

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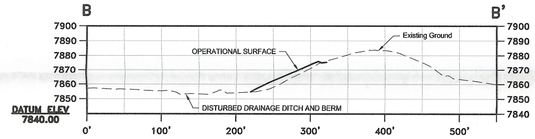

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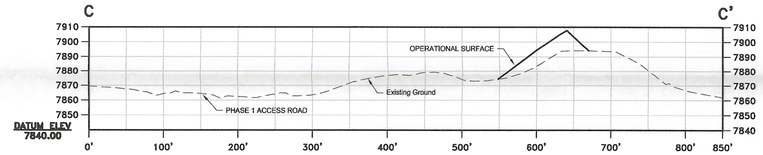

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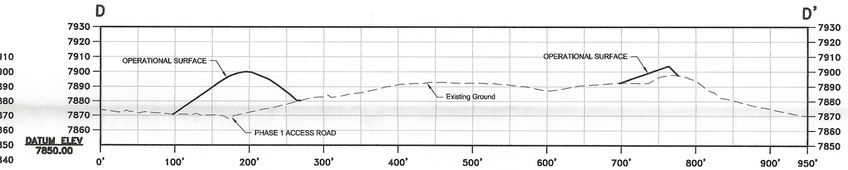

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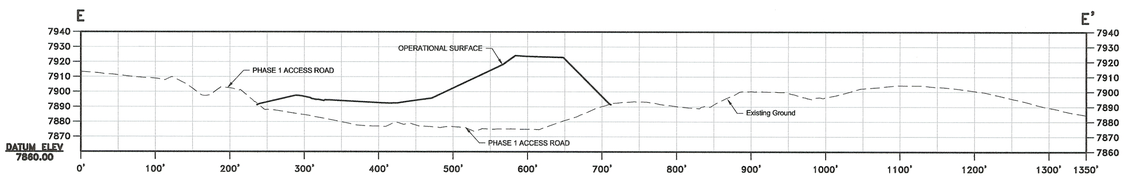

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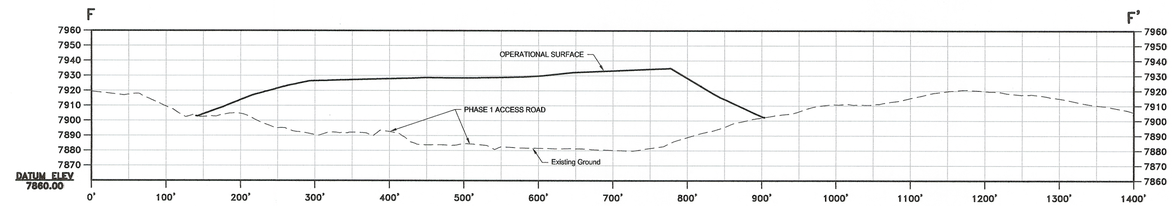

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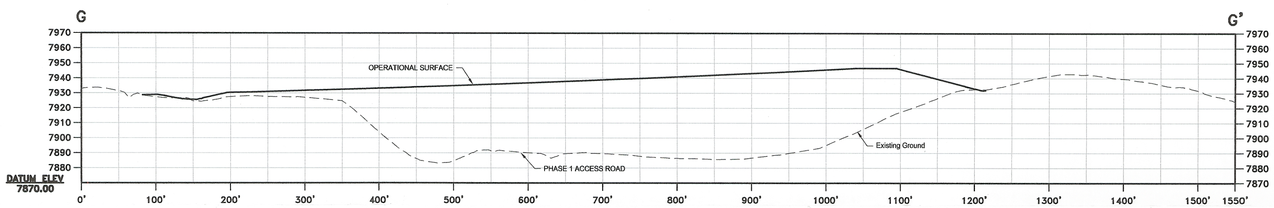

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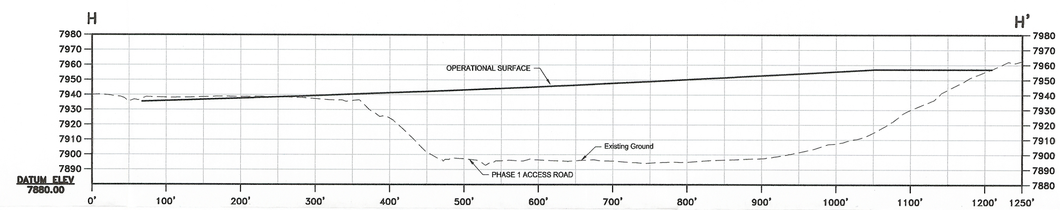

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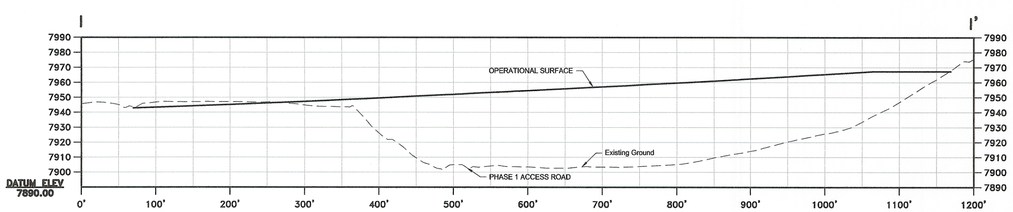

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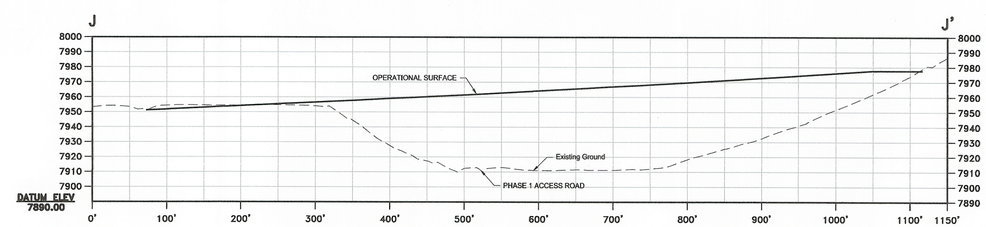

SECTION J–J'

LEGEND

— — — — EXISTING GROUND SURFACE, BASED ON THE 2016 AERIAL TOPOGRAPHY

——— OPERATIONAL SURFACE

REVISIONS

NO.	DATE	REQ. BY	DWG. BY	REMARKS
1	8/6/2014	VM	JA	PLATE UPDATES
2	9/4/2014	VM	JA	PLATE UPDATES
3	9/19/2014	VM	JA	PLATE UPDATES
4	10/18/2016	VM	JA	PLATE UPDATES

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WASTE ROCK PILE
OPERATIONAL CROSS SECTIONS

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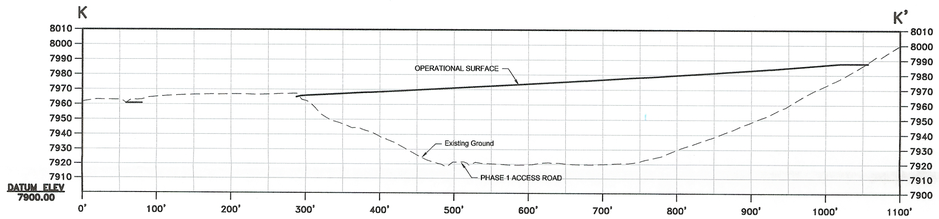

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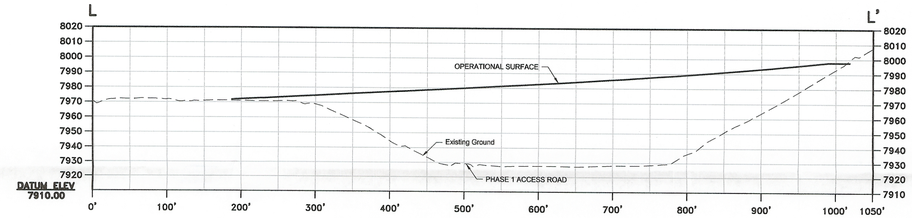

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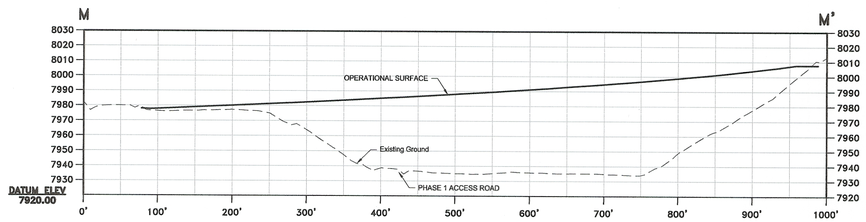

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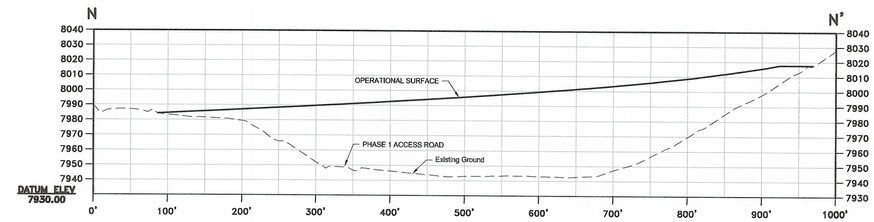

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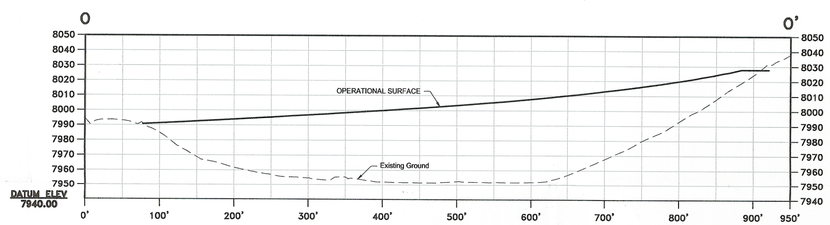

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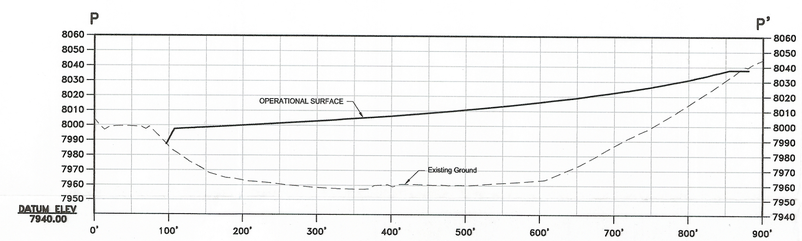

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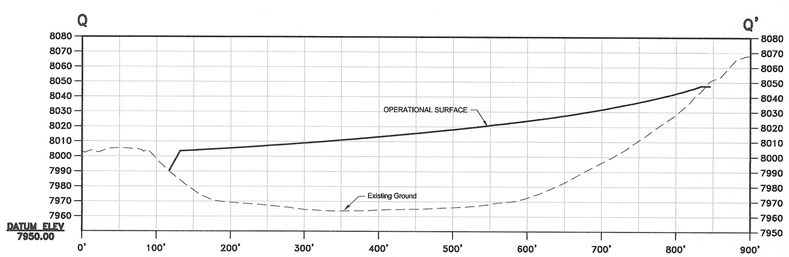

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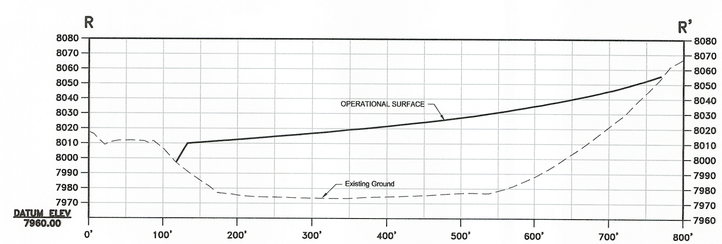

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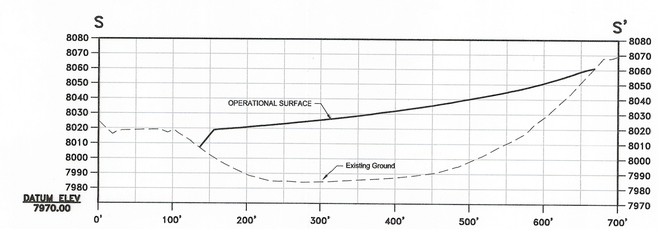

SECTION S–S'

LEGEND

— — — — EXISTING GROUND SURFACE, BASED ON THE 2016 AERIAL TOPOGRAPHY

——— OPERATIONAL SURFACE

REVISIONS

NO.	DATE	REQ. BY	DWG. BY	REMARKS
1	8/6/2014	VM	JA	PLATE UPDATES
2	9/4/2014	VM	JA	PLATE UPDATES
3	9/19/2014	VM	JA	PLATE UPDATES
4	10/18/2016	VM	JA	PLATE UPDATES

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WASTE ROCK PILE
OPERATIONAL CROSS SECTIONS

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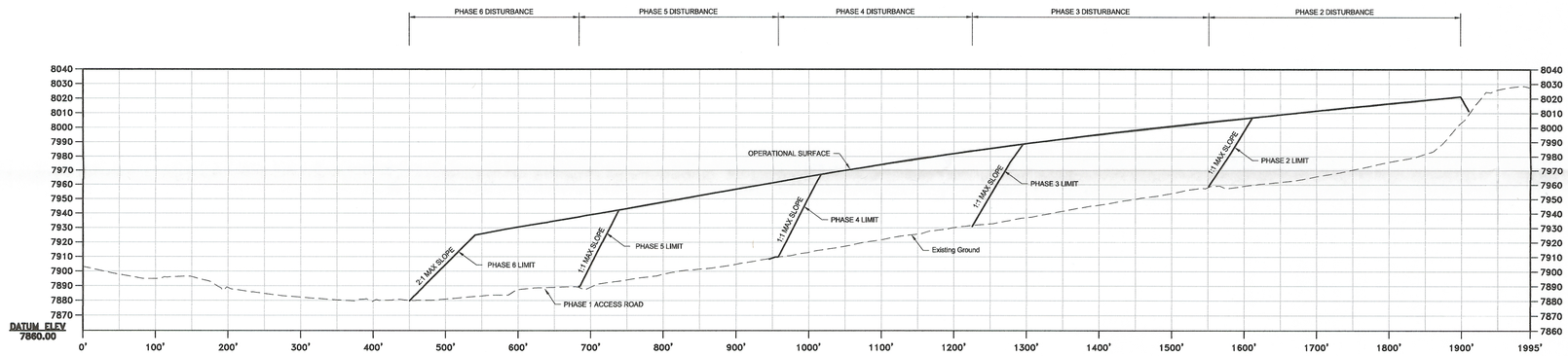

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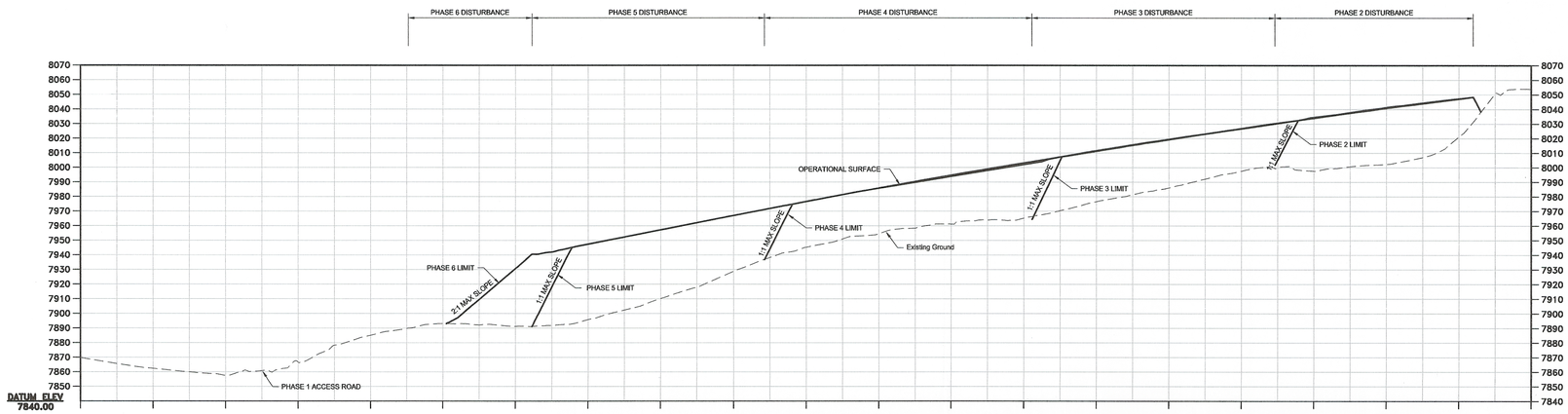

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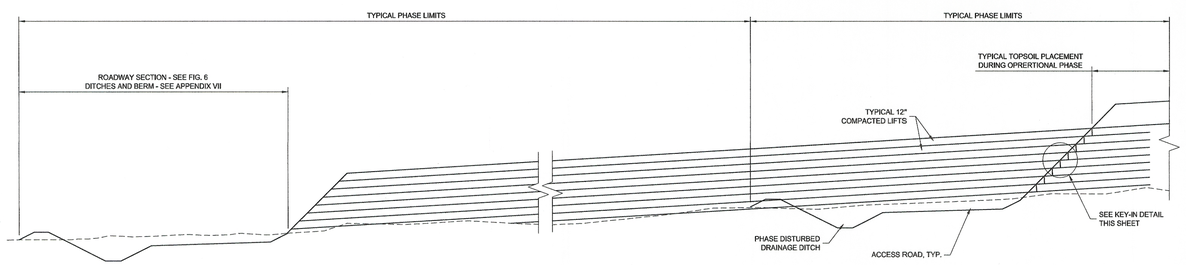
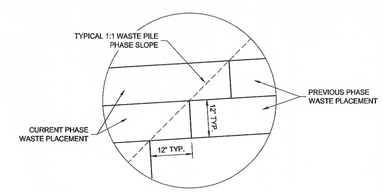


TYPICAL WASTE PLACEMENT
AND KEY-IN DETAIL



SLOPE KEY-IN DETAIL

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— — — — EXISTING GROUND SURFACE, BASED ON THE 2016 AERIAL TOPOGRAPHY

———— OPERATIONAL SURFACE

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NO.	DATE	REQ. BY	DWG. BY	REMARKS
1	8/6/2014	VM	JA	PLATE UPDATES
2	9/4/2014	VM	JA	PLATE UPDATES
3	9/19/2014	VM	JA	PLATE UPDATES
4	10/18/2016	VM	JA	PLATE UPDATES

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